



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D350-591-122
Job Sheet 174220



Part No: D350-591-122

Job Qty: ~~1ea~~ 2

Part Name: Heli-Access-Step™ RH - High Gear, Short Step, Float Compatible



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 3/13/18

Job Tracking No: ~~PRIME ONLY~~

Due Date: 4/9/18

Created By: Linda Lacelle

Type: SOLD

Description:

Note: DWG D2351-042 REV E, IIN-D350-591 REV H IPP Rev:E 02.10.21 Re-format; Incorporated D2351-041 IPP KJ/Rf

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	4/7/18	4/7/18	0.00	0.00	Start Up Large Fab-4		DC 2018-04-06
110	Large Fab	1 pcs	4/7/18	4/7/18	0.00	0.80	Large Fab 8		DC 2018-04-06
120	CNC Bend Skidtubes	1 pcs	4/7/18	4/7/18	0.38	0.35	CNC Bend Skidtube		
122	QC	1 pcs	4/7/18	4/7/18	0.00	0.00	QC5		D18011
126	Large Fab	1 pcs	4/7/18	4/7/18	0.00	1.12	Large Eab 8		CPL
130	QC	1 pcs	4/7/18	4/7/18	0.00	0.00	QC5		SA 2018-04-13
140	Large Fab	1 pcs	4/7/18	4/7/18	0.00	0.83	Large Fab 2		CPL
150	QC	1 pcs	4/7/18	4/7/18	0.00	0.00	QC9		SA 2018-04-13
160	QC	1 pcs	4/7/18	4/7/18	0.00	0.00	QC5		SA 2018-04-13
170	HandFinish	1 pcs	4/7/18	4/7/18	0.00	0.23	HandFinish1		SA 18-04-16
180	QC	1 pcs	4/7/18	4/7/18	0.00	0.00	QC7-2		CPL
190	Large Fab	1 pcs	4/7/18	4/7/18	0.00	0.80	Large Fab 2		SLU
220	QC	1 pcs	4/7/18	4/7/18	0.00	0.00	QC10		CPL
230	QC	1 pcs	4/7/18	4/7/18	0.00	0.00	QC5		CPL
240	HandFinish	1 pcs	4/7/18	4/7/18	0.00	0.19	HandFinish1		SA 18-04-18
260	HandFinish	1 pcs	4/9/18	4/9/18	0.00	0.19	HandFinish3		BK 18-4-18
270	QC	1 pcs	4/9/18	4/9/18	0.00	0.00	QC3		EB
280	Packaging	1 pcs	4/9/18	4/9/18	0.00	0.00	Packaging1-3		
290	QC	1 pcs	4/9/18	4/9/18	0.00	0.00	QC4		Smb
295	DC	1 pcs	4/9/18	4/9/18	0.00	0.00	DC		
300	Packaging	1 pcs	4/9/18	4/9/18	0.00	0.00	Packaging3-1		Smb
310	QC21-FG	1 Ea	4/9/18	4/9/18	0.00	0.00	QC21		21 MAY 02 2018

Part Op 110 - 1-Cut D2244-116 extrusion to 55.32" long as per Dwg D2351 using cutting table setup DT8185-G

Descriptions: 120 - Bend as per Dwg D2351-041 using CNC Bender 1 and Folio FT011. Use Bend Program D2351-041.

126 - ***BUFF AND REMOVE BENDING MARKS WITHIN .005", if deeper see engineer***

140 - 1-Bevel Fwd and Aft end for welding

190 - 1-Rivet Leg Assembly as per Dwg D2351

295 - Photocopy bluefile and type labels as per PPP D350-591-121 CHG005

300 - Identify and pack for shipping as per PPP D350-591-121

310 - 3-Do not Grind top edge Flush

BEB 18-04-18
Wing Wdk M138761

H 2 x 2 x 8 L 8505

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : ☐					

Job BOM				
Part / Item	Component Name	Quantity	Operation	Container
D2244-116	Step Extrusion	.5000 Ea (.5 ea)	90-Start up Operation	
D2850-2	End Cap	1 Ea (1 ea)	126-Large Fab	F150658
D2582	Hi-Skid Step Leg Assembly	1 Ea (1 ea)	190-Large Fab	
D2673-34	End Plate	1 Ea (1 ea)	190-Large Fab	
MS20600-AD4W3	Cherry Rivet	16 Ea (16 ea)	190-Large Fab	
AN3-37A	Bolt	2 Ea (2 ea)	280-Packaging	S031381
AN4-13A	Bolt	1 Ea (1 ea)	280-Packaging	S045860
AN4-16A	Bolt	2 Ea (2 ea)	280-Packaging	S041125
D2230-1	Mounting Lug	1 Ea (1 ea)	280-Packaging	S059886
D2230-3	Mounting Lug	1 Ea (1 ea)	280-Packaging	S051382
D2732-030	Rubber Cushion - 3"	2 Ea (2 ea)	280-Packaging	S044807
MS21042L3	Nut	2 Ea (2 ea)	280-Packaging	S038764
MS21042L4	Nut	3 Ea (3 ea)	280-Packaging	S045901
NAS1149D0363J	Washer	4 Ea (4 ea)	280-Packaging	S015269
NAS1149D0463J	Washer	6 Ea (6 ea)	280-Packaging	S045845

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D2244-116	1	168	0
126-Large Fab	D2850-2	1	9	0
190-Large Fab	D2582	1	1	0
	D2673-34	1	19	0
	MS20600-AD4W3	16	215	0
280-Packaging	AN3-37A	2	85	0
	AN4-13A	1	671	0
	AN4-16A	2	345	0
	D2230-1	1	44	0
	D2230-3	1	71	0
	D2732-030	2	255	0
	MS21042L3	2	3,120	0
	MS21042L4	3	3,343	0
	NAS1149D0363J	4	3,263	0
	NAS1149D0463J	6	4,436	0

Part Specifications				
Specifications could not be found.				

DQA: _____ Date: _____



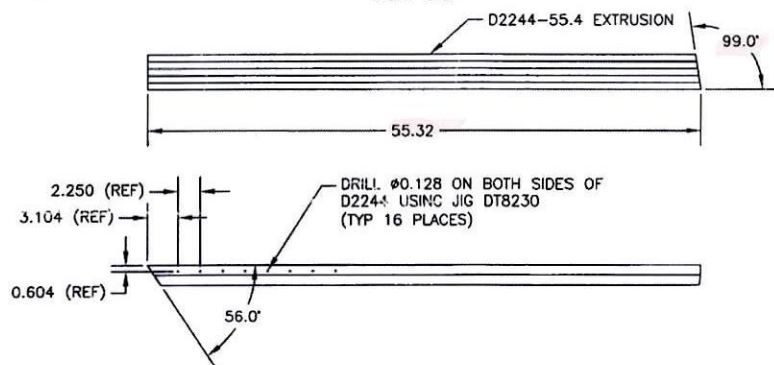
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

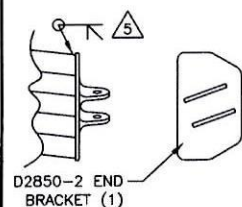
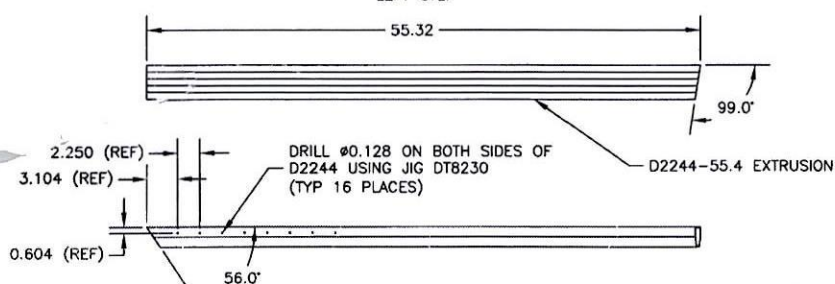
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

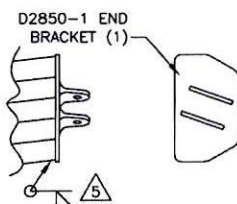
**D2351-2 CUTTING/DRILLING DETAIL
RIGHT STEP**



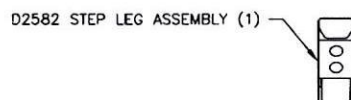
**D2351-1 CUTTING/DRILLING DETAIL
LEFT STEP**



DETAIL A
SCALE: 1:4



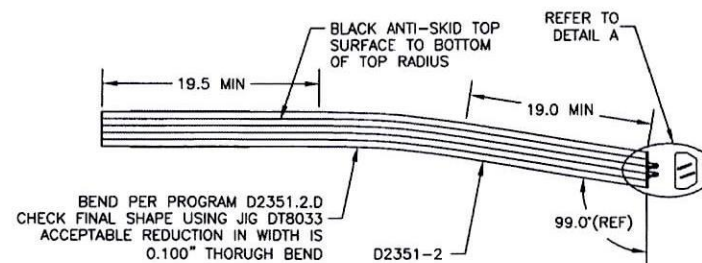
DETAIL B
SCALE: 1:4



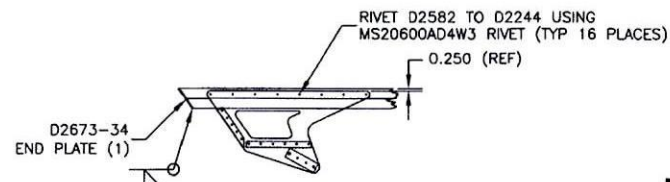
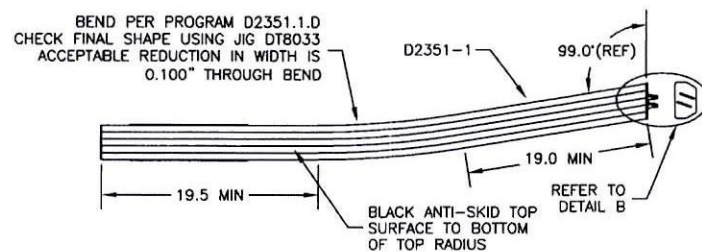
GENERAL NOTES

- 1) WELD PER DART QSI 004
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
 - 3) ALL DIMENSIONS ARE IN INCHES
 - 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- △ CHAMFER D2244 EXTRUSION 0.075"x45° BEFORE WELDING D2850-1 OR D2850-2 IN PLACE. DO NOT GRIND FLUSH.

**D2351-042 BENDING/ASSEMBLY DETAIL
RIGHT STEP**



**D2351-041 BENDING/ASSEMBLY DETAIL
LEFT STEP**



RELEASED
05.11.28

UNDER REVIEW

REV 1105

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DESIGN	DRAWN BY	DART	DART AEROSPACE LTD. HARRISBURY, ONTARIO, CANADA
KE	PH		
CHECKED	APPROVED	DRAWING NO. D2351	REV. E SHEET 2 OF 2
DATE 05.11.14		TITLE HIGH FLOAT STEP ASSEMBLY	SCALE 1:12



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S058778



Part: D350-591-122

Job No: 174220

Serial No/Batch: S058778

Revision:

Inspector:

Date: 04/06/18



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

Container View (Active) - Master Unit Containers

Master Unit No	Container No	Part No	Part Name	From Container	Current Location	Quantity
002601	S034387 ✓	AN3-37A	Bolt		ST347	4
002601	S062397	AN4-13A	Bolt	S045860 ✓	ST344	2
002601	S062396	AN4-16A	Bolt	S041125 ✓	ST343	4
002601	S062395	D2230-1	Mounting Lug	S059886 ✓	ST521	2
002601	S062394	D2230-3	Mounting Lug	S051382 ✓	ST521	2
002601	S062391	D2732-030	Rubber Cushion - 3"	S044807 ✓	ST410	4
002601	S062389	MS21042L3	Nut	s038764 ✓	ST303	4
002601	S062388	MS21042L4	Nut	s045901 ✓	ST303	6
002601	S062387	NAS1149D0363J	Washer	s015269 ✓	ST263	8
002601	S062386	NAS1149D0463J	Washer	s045845 ✓	ST263	12

Note: Ad hoc query view of Part.dbo.Container where Container.Active = 1.

Plex 4/18/18 11:27 AM dart.quirion.sonia

5.0 PARTS LIST

Qty -117A	Qty -119	Qty -133	Part Number	Description
X			D350-591-117A	<i>Heli-Access-Step</i> ™, Pre-Flight Step
	X		D350-591-119	<i>Heli-Access-Step</i> ™, Long Step – Low Skid
		X	D350-591-133	<i>Heli-Access-Step</i> ™, Aft Maintenance Step
	1		D2355	STEP ASSEMBLY (LOW-LONG)
		1	D2946-041	STEP ASSEMBLY (MAINTENANCE)
2	2		D2171	CLAMP
2	2		D2182B035	CUSHION
		4	D2230-1	MOUNTING LUG
		4	D2230-3	MOUNTING LUG
4	4		D2274	RADIUS BLOCK
1			D2362-041	SUPPORT BRACKET
	1		D2362-3	SUPPORT BRACKET
		1	D2945	MOUNTING PLATE
1	1		D3595-200-300	CUSHION
		8	D2732-030	CUSHION
	2		AN3-37A	BOLT
		2	AN4-7A	BOLT
		4	AN4-11A	BOLT
		8	AN4-16A	BOLT
	4		AN4-21A	BOLT
4	1		AN4-22A	BOLT
	4		NAS1149D0363J	WASHER (AN960JD10)
4	6	14	NAS1149D0463J	WASHER (AN960JD416)
	2		MS21042L3	NUT
4	5	14	MS21042L4	NUT

Qty -121	Qty -122	Qty -123	Qty -124	Part Number	Description
X				D350-591-121	<i>Heli-Access-Step</i> ™, Short Step – High Skid, LH
	X			D350-591-122	<i>Heli-Access-Step</i> ™, Short Step – High Skid, RH
		X		D350-591-123	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH
			X	D350-591-124	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH
1				D2351-041	STEP ASSEMBLY (HIGH-SHORT, LH)
	1			D2351-042	STEP ASSEMBLY (HIGH-SHORT, RH)
		1		D2356-041	STEP ASSEMBLY (LOW-SHORT, LH)
			1	D2356-042	STEP ASSEMBLY (LOW-SHORT, RH)
1	1	1	1	D2230-1	MOUNTING LUG
1	1	1	1	D2230-3	MOUNTING LUG
2	2	2	2	D2732-030	CUSHION
2	2	2	2	AN3-37A	BOLT
1	1	1	1	AN4-13A	BOLT
2	2	2	2	AN4-16A	BOLT
4	4	4	4	NAS1149D0363J	WASHER (AN960JD10)
6	6	6	6	NAS1149D0463J	WASHER (AN960JD416)
2	2	2	2	MS21042L3	NUT
3	3	3	3	MS21042L4	NUT

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Revision: H

Date: 15.11.20

Change Record

PAGE 1 OF 1

Part Number: D350-591-122

Description: HELI-ACCESS STEP, HIGH SKID, SHORT STEP, RH

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			